Automation

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Bar codes automate self-help stores

The Self-Help Program at Army installations has two goals. First, it seeks to lower the maintenance burden on facility engineers by allowing family housing and troop tenants to do their own minor repairs and remodeling promptly. Second, it enhances tenants' pride in protecting and maintaining their quarters.

The stores that support these goals range in size from small operations that supply only a few family quarters and barracks to large operations that manage over 4,500 accounts and carry extensive inventories.

The self-help store is like a retail hardware store. Some have an open-aisle arrangement, while others have counter services. In all cases, however, the clerks who work in the stores are craftsmen who provide advice. Typical supplies include paint, carpet shampoo, and replacement washers for faucets. Equipment commonly borrowed ranges from electric drills and saws for larger projects, edgers, pruning shears, and lawn mowers for grounds maintenance.

When the record keeping required for self-help stores became a burden, the U.S. Army Center for Public Works (USACPW) and the Corps Construction Engineering Research Laboratories (CERL) stepped in. They developed a bar code-based computer system to speed customer service and provide real-time management information.

The Self-Help Service Center Management System (SHSCMS) automates the issue of supplies and the temporary loan of tools and equipment. It also provides a database with accurate information on inventory levels and use, transaction costs and dates, and customer account information.

This system was offered free to all Army Installations through 1990 and on a reimbursable basis to Army, Navy, and DoD customers since 1991. Self-help store operators have directed the development of this management tool since 1991. More than 60 installations are using various versions of this software. A few installations are still using the Version 1.1 produced in 1989!

The 15 installations that have purchased FY 95 support for SHSCMS are currently implementing all the new features and improvements from version 3.0. The sites now using the latest version of the system are pleased with its improved performance. "It saves us a ton of paper work," said Wilford Parker, Director of Information Management at Fort Polk, Louisiana.

Before they had the system, Fort Polk's Self Help store personnel had to record each customer's transaction manually. This process delayed service and made it difficult to track information.

The system runs on IBM-compatible PCs. Networked systems require a 486-based machine for the server, while 386-based machines are sufficient for stand-alone or networked work stations. Barcode labels can be generated onsite, using standard printers and a custom printing program embedded in the SHSCMS package. Code 39, the standard DoD symbology, is used for label-making. The retail-style scanning devices used with SHSCMS can also read existing unit price code, carried on many store items, and map these numbers to a corresponding national stock number.

Some creative uses of the system include the issuance of barcoded ID cards at Fort Lewis to verify the customer has taken the required safety classes prior to sue of the store. By barcoding temporary yard equipment, Fort Lewis has been able to speed-up the return of temporary loan items. The barcoding has also been extremely helpful for identifying who checked-out items that were left at the store after it has been closed for the day.

Fort Benning has its customers histories from the time the individuals check into their quarters. They can track permanent and temporary check-outs to make sure equipment has been returned on time. And for seasonal things, like bedding plants, they can se that everyone gets an equitable share. Since the system has two automatic seasonal adjustment levels, it can make sure certain supplies are available when the demand peaks.

SHSCMS can be used to track troop projects as well as the family housing Self-Help Program. Fort Benning uses the system to manage troop supplies by verifying signature cards. Fort Benning uses SHSCMS to tell battalion and brigade commanders what they used over a given time period for individual projects.

Since 1991, SHSCMS has been a customer driven system. Part of the support fee is used to

hold an Annual User's Group Meeting. During this meeting, users identify what corrections and additions they want included in the program. Requirements are prioritized and then delivered when they are developed. The current Version 3.0 is a result of the requirements identified during the FY 94 User's Group meeting at Fort Lewis.

This fiscal year's support responsiveness has been improved by supplying each site with a modem and remote access software that allows prompt dial-in service for both system upgrades and problem diagnosis and correction. An electronic bulletin board is also maintained that allows users to download the most current software, post questions, and read about the progress on the development of system enhancements.

Current users include: 17th ASG (Japan), 100th ASG (Germany), Fort Benning, Fort Campbell, Fort Drum, Fort Greely, Fort Hood, Fort Lee, Fort Lewis, Navy Family Housing San Diego, Fort Polk, Fort Richardson, Fort Sill, Vint Hill Farms, and Fort Wainwright.

For more information or to request a demonstration diskette, please call Jeff Kirby, USACERL, (800) USA-CERL or (217) 373-6730, or Jim Routson, CECPW-EB, (703) 806-5041 DSN 656.

Software computes zone loads

by Dana Finney

Enhanced software for the BLAST program quickly calculates zone heating and cooling loads for most commercial building configurations. The Heat Balance Loads Calculator (HBLC) allows designers to define an entire building with multiple zones with simple click-and-drag mouse operations. Hourly zone load profiles and block loads for design days and design years are computed and graphically displayed by the Windows-based program.

BLAST, which stands for Building Loads Analysis and System Thermodynamics, provides the computational engine for the HBLC. This gives the new software some of the most powerful, accurate algorithms available today for calculating heating and cooling loads. The BLAST simulation engine also allows HBLC to perform a complete energy analysis of a building.

Up to 50 simultaneous thermal zones at various elevations can be defined for a single building. Surface constructions are easy to specify using the integrated, dynamic database of standard construction elements.

HBLC allows the user to specify all types of scheduled loads, including people, lights, equipment, and outside air. Up to 32 loads can be scheduled for a given thermal zone. HBLC contains 50 library schedules, including standard schedules from the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE), which can be applied to

these loads. If the desired schedule is not available, the user can quickly build a custom schedule.

BLAST was developed by the U.S. Army Construction Engineering Research Laboratories (CERL) to help military installations design optimal heating, ventilating, and air-conditioning systems. Both BLAST and the new HBLC are available from the BLAST Support Office at the University of Illinois, Urbana-Champaign. Call 1-800-UIBLAST for more information or a free demonstration disk.

POC is Dana Finney is a public affairs officer at the U.S. Army Construction Engineering Laboratories in Champaign, IL.

CERL tools help with M&R decisions on underground tanks and pipes

CERL has developed three computer programs to assist DPWs to manage their underground gas and water distribution systems, and underground storage tanks.

GPIPER

The Gas Pipe Engineered Management System, or GPIPER, stores information on gas distribution piping, the surrounding soil, and any existing cathodic protection system. Using this information, the program predicts corrosion status of the pipe, including approximate year of first leak and number of leaks per year which can be expected.

WPIPER

The Water Pipe Engineered Management System, WPIPER, concentrates on the inside of water distribution piping. The system includes a pipe network inventory, a hydraulic model, data analysis reports and a Hazen-Williams C-factor prediction model. The program can determine when a piping system, or a certain section of it, will no longer meet fire flow and/or daily demand requirements.

CP DIAGNOSTIC

The Cathodic Protection Diagnostic Program (CP DIAGNOSTIC) assists in evaluating, troubleshooting, and maintaining data on CP systems for underground storage tanks, piping, and elevated water storage tanks. Based on background data and data obtained from field measurements, the program pinpoints malfunctioning CP systems which are not providing proper corrosion protection, and deteriorating systems whose performance has declined over

time.

In addition to the capabilities noted above, each of these systems provides a repository for data on system components and maintenance records. This is particularly useful for underground storage tanks, where maintenance records must be maintained to comply with 40 CFR, Part 280.

With the information provided by these three programs, DPWs can prioritize the allocation of maintenance dollars and forecast future maintenance needs.

For more information, please contact Jane Anderson at CPW, (703) 806-5214 DSN 656, or e-mail andersoj@belvoir-cpw1.army.mil; or Vicki Van Blaricum at USACERL, (217) 373-6771.

DGSC products available on Internet Worldwide Web

DLA's Defense General Supply Center (DGSC) has brought the logistics system of the 21st century a little closer to its customers today through the Worldwide Web.

Military and civilian agency customers with access to the Internet can now log on to DGSC's home page on the Worldwide Web (http://www.dgsc.dla.mil) and order items directly on line.

Catalogs Available

The Environmentally Preferred Products and Energy Efficient Lighting catalogs are currently available for browsing and more catalogs are planned for the future. Customers are not restricted to only ordering catalog items, however. With the national stock number and other data required to input a MILSTRIP or FEDSTRIP requisition, any item managed by DGSC can be ordered on line.

Varied Products

Some of the varied commodities managed by DGSC include chemicals, pesticides, refrigerants, batteries, food service equipment, packaged POL and film. Various brochures and catalogs are available in hard copy on floppy disk in addition to those on the DGSC home page.

For information on the commodities managed by DGSC, contact our marketing office at 1-800-352-2852 DSN 695-5699 or fax your request to 1-800-352-3291 DSN 695-5695.
For information on DGSC's web site, please contact Jerry Petet at (804) 279-6082 or Jackie Covolo at (804) 279-3100 DSN 695.